

Letters and numbers shall be of the following minimum dimensions (RRS 77 and Appendix G):

|  |        |
|--|--------|
| a) Height:   | 350 mm |
| b) Thickness:  | 50 mm  |
| c) Width (excluding number one and letter l) :                                 | 230 mm |
| d) Minimum space between adjoining or opposite characters,<br>or edge of sail: | 70 mm  |

#### C.8.2 LIMITATIONS

C.8.2 a) Not more than one mainsail, two jibs, two spinnakers of either size shall be carried on board when racing. At an event where sails are to be measured, only the above sails shall be presented for measurement and no other sails shall be used in that event except by express permission of the race committee.

C.8.2 b) i) MAINSAIL

The number of battens in each batten pocket is unrestricted

ii) HEADSAIL

Only one batten is permitted in each batten pocket

#### C.8.3 SETTING

(a) **Mainsail**

The highest visible point of the **sail**, projected at 90° to the **mast spar**, shall not be set above the **upper point**. The **leech**, or its extension, shall not intersect the upper edge of the **boom spar** beyond the **boom point**.

### C.9 Additional Rules

C.9.1 As permitted by RRS 86.1(c), RRS 42.3(c) is altered to: Except on a beat to windward, when surfing (rapidly accelerating down the leeward side of a wave), or planing is possible, the crew may pull the sheet controlling any sail in order to initiate surfing or planing, but not more than twice for each wave or gust of wind. In addition, pumping of the spinnaker guy is permitted at all times without restriction. In this part of the Rule “pumping the spinnaker guy” means repeatedly trimming and releasing the guy by any means. Moving the body as reasonably necessary to pump the guy is permitted and shall not be considered to be ooching (see RRS 42.2 (c)), nor shall any rolling of the boat caused by such reasonably necessary movements be considered rocking (see RRS 42.2 (b)).

C.9.2 No aids to support the crew outboard are permitted except for:

- a) Handles on deck which if of rigid material shall not extend outboard of the sheerline and shall not exceed 75mm in height above the deck.
- b) Five hand-holes of maximum length 120mm and maximum width 35mm through each side of the deck.
- c) Foot straps, which shall be fastened inside the cockpit and shall not be able to extend outboard of the sheerline.
- d) Body straps which shall not be attached to, or led through, any point more than 75mm above the sheerline and which shall not be used as foot straps. Such body straps shall not be used without at the same time using the foot straps specified in

## F.2.3 FITTINGS

F.2.3.1 Fittings of the mast are optional.

F.2.3.2 A furling device for the jib shall be permitted.

## F.2.4 DIMENSIONS (see drawing)

F.2.4.1 The mast shall be stepped on deck and on the centreline. The forward side of the mast shall be located 270mm  $\pm$  50mm aft of the Breakwater Measurement Point (see also Rule C.9.5)

F.2.4.2 Below a point 600mm above the top of the band defined in Rule F.2.4.5 (a) the luff groove may be cut away or otherwise modified.

- a) Above a point 6300mm above the band defined in Rule F.2.4.5 (a) the mast may be tapered to a minimum of 40mm athwartships and 55mm fore and aft including the luff groove at the topmost band.
- b) Tapering shall be achieved only by making a cut or cuts down the section, closing them, and making continuously welded butt joints.
- c) No such cut shall extend below the point defined in Rules F.2.4.1 and F.2.4.2.
- d) The finished taper shall not be concave except that hollows not exceeding 3mm and optional fairing within 75mm of the backstay crane shall be permitted.
- e) The sectional weight may be varied only by the removal of material due to the taper.

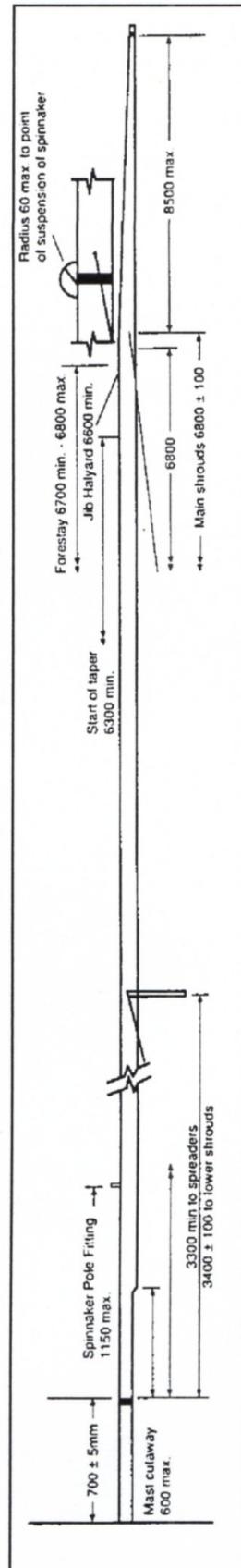
### F.2.4.3 Mast spar curvature

Permanently bent masts and rotating masts shall be prohibited. A set, due to distortion, of up to 50mm between upper and lower bands shall be permitted.

### F.2.4.4 Mast spar cross section

Except as permitted in Rule F.2.4.2 (a) below a point 6300mm above the band defined in Rule F.2.4.5 (a) the mast shall be of constant section whose dimensions shall be 80mm  $\pm$  10mm athwartships and 120mm  $\pm$  10mm fore and aft including the luff groove. The mast shall be deemed to be of constant section provided that no variation in fore and aft or athwartships dimension between any two points exceeds 3mm.

|              | minimum | maximum |
|--------------|---------|---------|
| Fore-and-aft | 110 mm  | 130 mm  |
| Transverse   | 70 mm   | 90 mm   |



F.2.4.5 **Spar band width** ..... 10 mm min

Bands of contrasting colours shall be painted on the mast as follows:

- a) One with its upper edge 700mm  $\pm$  5mm above the deck.
- b) One with its lower edge 6800mm above the upper edge of the band defined by Rule F.2.4.5 (a).
- c) One with its lower edge not more than 8500mm above the upper edge of the band defined by Rule F.2.4.5 (a).

F.2.4.6 **Forestay and shroud heights**

See Rule F.5.3.1. (c)

|  | minimum | maximum |
|--|---------|---------|
| <b>F.2.4.7 Spinnaker pole fitting</b>  |         |         |
| The point of attachment of the spinnaker pole (height) shall be on the forward face of the mast and not more than 1150mm above the upper edge of the band defined by Rule F.2.4.5 (a). |         |         |
| <b>Projection</b> .....  | 52 mm   |         |
| <b>F.2.4.8 Spinnaker hoist height, from band defined in F.2.4.5 (b)</b> .....  | 60 mm   |         |
| <b>F.2.4.9 Spreaders above the upper edge of the band defined by Rule F.2.4.5 (a).</b>   |         |         |
| <b>height</b> .....  | 3300 mm |         |
| <b>length</b> (bearing point from mast).....   | 640 mm  |         |
| See also Rule F.5.3.1 (e)  |         |         |

F.2.4.10 **Mast weight**

The sectional weight including the luff groove shall be not less than 2.20kg/m.

F.2.4.11 **Tip weight** ..... 11 kg

- a) The mast complete with all standing and running rigging and supported at the band defined in Rule F.2.4.5 (a) shall weigh not less than 11kg when it is weighed at the band defined in Rule F.2.4.5 (c).
- b) For the purpose of this measurement the halyards shall be fully hoisted and the standing rigging secured along the mast. The ends of the rigging below the band defined in rule F.2.4.5 (a) may rest on the ground or be removed so as not to affect the tip weight. The weight of the spinnaker shackle, for the purpose of tip weight, shall not be more than 70gr.
- c) The mast shall not be disqualified if a shortfall in the weight measured in accordance with Rule F.2.4.10 can be corrected by the fixing of a corrector weight of not more than 300gr at a point above the top band. The corrector weight shall be fixed by a screw fitting (bolt and nut) attached through holes drilled in the mast or crane.
- d) For the purposes of Rule F.2.4.10 any readily removable fittings such as a wind indicator shall be removed.

### **F.3 Boom**

#### **F.3.1 MANUFACTURER**

Manufacturer is optional.

#### **F.3.2 MATERIALS**

**F.3.2.1** The main boom shall be of a light alloy extrusion with a fixed groove for the mainsail footrope.

#### **F.3.3 FITTINGS**

Fittings of the boom are optional.

#### **F.3.4 DIMENSIONS**

**F.3.4.2** Sectional dimensions between the control mark (See Rule 8.4) and the aft edge of the mast shall be 65mm  $\pm$  5mm in width and 80mm  $\pm$  5mm in height including the groove except that for a distance not exceeding 600mm from the aft edge of the mast the groove may be cut away or otherwise modified.

**F.3.2.3** Tapered or permanently bent booms shall be prohibited. Internal or external reinforcement of the boom section in similar material is permitted. In the case of external reinforcement the addition to the section or part of it of material having a thickness of not more than 6mm and a total length along the boom of not more than one metre shall be disregarded when measuring the maximum dimensions of the boom section. A set, due to distortion, of up to 25mm between band and mast shall be permitted.

**F.3.2.4** A band of contrasting colour shall be painted on the boom with its inner edge not more than 3200mm distant from the aft side of the mast, excluding any local curvature.

|   | <b>minimum</b> | <b>maximum</b> |
|---|----------------|----------------|
| <b>Outer point distance</b> .....                 |                | 3200 mm        |
| <b>Boom spar curvature</b> .....                  |                | 25 mm          |
| <b>Boom spar cross section</b> (see rule F.3.2.3) |                |                |
| <b>Vertical</b> .....                             | 75 mm          | 85 mm          |
| <b>Transverse</b> .....                           | 60 mm          | 70 mm          |

**F.3.2.5 Boom weight** ..... 1.25 kg/m<sup>2</sup>

The section weight shall be not less than 1.25kg/m<sup>2</sup>.

## **F.4 Spinnaker Pole**

### **F.4.1 MANUFACTURER**

(a) Manufacturer is optional.

### **F.4.2 MATERIALS**

The spinnaker boom shall be made of alloy containing not less than 90% aluminium, or wood.

### **F.4.3 FITTINGS**

Fittings may be of any material.

### **F.4.4 DIMENSIONS**

|                              |             |
|------------------------------|-------------|
| <b>Spinnaker pole length</b> | 2615 mm max |
|------------------------------|-------------|

## **F.5 Standing Rigging**

### **F.5.1 MANUFACTURER**

Manufacturer is optional.

### **F.5.2 MATERIALS**

F.5.2.1 The standing rigging shall be of steel construction.

### **F.5.3 FITTINGS**

F.5.3.1 The standing rigging shall consist of only:

- a) Two main shrouds of not less than 3.8mm Ø shall be attached to the mast in such a way that the point of intersection of the outside of the mast and the centreline of the wire (extended if necessary) is located at 6800mm ± 100mm above the band defined by Rule F.2.4.5.
- b) Two lower shrouds of not less than 3.8mm Ø shall be attached to the mast in such a way that the point of intersection of the outside of the mast and the centreline of the wire (extended if necessary) is located at 3400mm ± 100mm above the band defined by Rule F.2.4.5 and a point 100mm below it.
- c) One permanent forestay of not less than 3.8mm Ø shall be attached to the mast in such a way that the point of intersection of the outside of the mast and the centreline of the wire (extended if necessary) is located between the lower edge of the band defined by Rule F.2.4.5 (b) and a point 100mm below it.
- d) One adjustable backstay of not less than 3mm diameter shall be attached to the mast head.
- e) Spreaders for the main shrouds shall be of alloy containing not less than 90% aluminium or of steel or of wood. They may be of a swinging type and the bearing point to the main shrouds shall be not less than 640mm from the side of the mast. The spreaders shall be attached to the mast above the lower shrouds as defined by Rule F.5.3.1 (b).
- f) There shall be a stop on the mast to prevent the upper edge of the boom extending below the upper edge of the band defined by Rule F.2.4.5 (a).
- g) The jib halyard shall meet the mast at a point not more than 200mm below the lower edge of the band defined in Rule F.2.4.5 (b).

- h) All halyards, or their extensions when hoisted, shall intersect the deck not more than 75mm from the mast.

#### F.5.4 DIMENSIONS

- F.5.4.1 The upper and lower shrouds shall meet the deck at 550mm ± 300mm aft of the Breakwater measurement point, and not more than 100mm from the outer edge of the deck.
- F.5.4.2 The forestay shall meet the deck at 2320mm ± 5mm forward of the Breakwater Measurement Point.

### F.6 Running Rigging

#### F.6.1 MANUFACTURER

Manufacturer is optional.

#### F.6.2 MATERIALS

See rule A.1.2

## Section G — Sails

### G.1 Certification

- G.1.1 **Sails** shall comply with the current **class rules**.
- G.1.2 Measurement shall be carried out in accordance with the ISAF Equipment Rules of Sailing (ERS) except where varied herein. Where a term defined or a measurement given in the ERS is used in these rules, it is printed in "**bold**" type.
- G.1.3 **Sails** shall carry the official **certification mark** near the **tack point**. The mark shall be signed and dated by the **official measurer**.
- G.1.4 The weight in g/m<sup>2</sup> of the **body of the sail** shall be indelibly marked near the tack point of mainsails and jibs, and the head point of spinnakers by the sailmaker together with the date and his signature or stamp.
- G.1.5 All new sails shall be supplied with ISA sail labels or sail buttons. Only measured sails with ISA sail labels or sail buttons shall be accepted in major events.

### G.2 Definitions

#### G.2.1 BATTEN POCKET

Additional **ply** to form a pocket for a batten or battens.

### G.3 Sailmaker

- G.3.1 Sailmaker is optional.

## G.4 Mainsail

### G.4.1 CONSTRUCTION

- a) The construction of the **sail** is free according to rules G.3.1 (b) to (g).
- b) Two or three **ply** sails are permitted.
- c) Any additional layer of material shall be of the same material as the remainder of the sail (i.e. woven cloth of non-aromatic polyamides).
- d) The sizes of the **reinforcements** are optional. The following are permitted for the construction of the sail: stitching, glues, tapes, bolt ropes, corner eyes, headboards with fittings, Cunningham eye/pulley, batten pocket elastic, batten pocket end closures, batten pocket patches, mast and boom slides, leech line with a fastener, windows, chaffing patches, flutter patches, reinforcing panels, tell tales, sailmaker label, royalty label, sail buttons, certification mark.
- e) Except for bolt ropes, head and clew boards, tape, cringles, jib hanks and transparent panels as specified below, sails shall be constructed only of woven fibres. Fibres other than those of polyester and non-aromatic polyamide are prohibited. Note, by way of clarification, that Kevlar is an aromatic polyamide and hence prohibited.
- f) Reefing cringles shall be optional.
- g) The diameter of the luff and foot ropes shall be not less than 8mm.
- h) Zippers are prohibited

### G.4.2 DIMENSIONS

|  | minimum            | maximum |
|--|--------------------|---------|
| G.4.2.1 <b>Leech length</b> .....  | 9170 mm            |         |
| <b>Half width</b> .....  | 2010 mm            |         |
| <b>Three-quarter width</b> .....   | 1160 mm            |         |
| <b>Upper width</b> at 510 mm from the <b>head point</b> .....  | 340 mm             |         |
| G.4.2.2 Weight of the <b>ply</b> of the <b>body of the sail</b> ..... 230 gr/m <sup>2</sup><br>Measurement by thickness may also govern in accordance with ISAF ERS. |                    |         |
| G.4.2.3 <b>Windows</b> (max. 3) total area .....   | 0.28m <sup>2</sup> |         |
| Shortest distance from <b>window</b> to <b>sail edges</b> .....  | 150 mm             |         |
| G.4.2.4 Width of the headboard measured at right angles to the line of luff .....  | 120 mm             |         |
| G.4.2.5 Only four batten pockets as defined in G.2.1 shall be permitted in the <b>leech</b> .  |                    |         |

#### **Batten pocket length:**

Uppermost pocket: ..... not limited

Distance from **headpoint** to lower edge of batten pocket

at the luff (min.) ..... min. 1900 mm

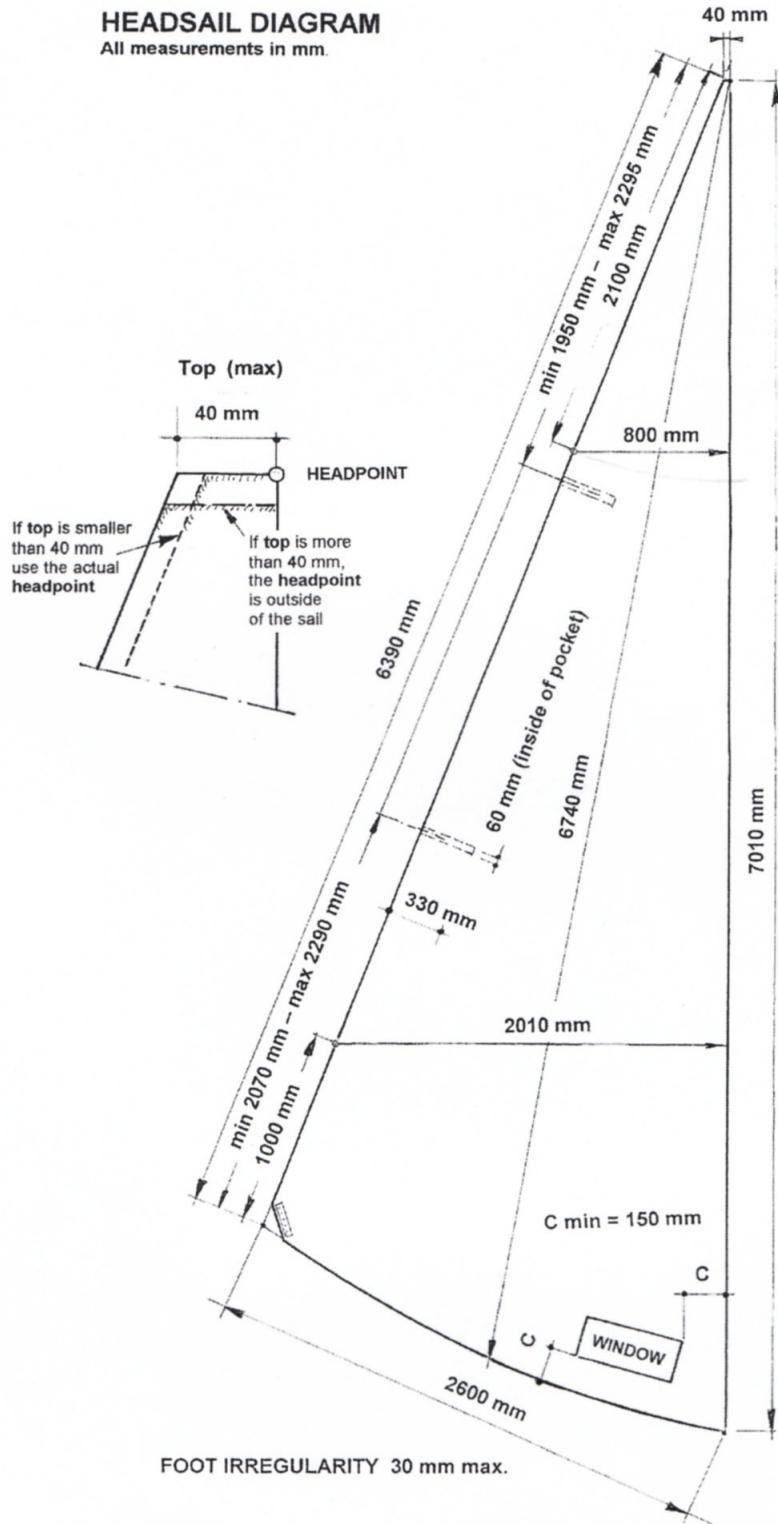
Other pockets: **Inside** ..... max. 1200 mm

**Batten pocket width: Inside** ..... max. 60 mm

G.4.2.6 The batten pockets shall divide the leech into five parts of 1820mm ± 80mm measured to the lower edges of the pockets.

## G.5 Headsail

**HEADSAIL DIAGRAM**  
All measurements in mm.



## G.5.1 CONSTRUCTION

- a) The construction of the jib is free according to rules G.1.1 to G.3.1.c). See also headsail diagram
- b) The following are permitted: Stitching, glues, tapes, corner eyes, hanks, batten pocket elastic, **batten pocket patches**, batten pocket end caps, leech line with cleat, three **windows**, sailmaker label, royalty label, sail button, tell tales, sail shape indicator stripes, **certification mark**.

## G.5.2 DIMENSIONS

|   |  | <u>maximum</u> |
|---|--|----------------|
| a) <b>Luff length</b> .....                                   |  | 7010 mm        |
| b) <b>Leech length</b> .....                                  |  | 6390 mm        |
| c) <b>Foot length</b> .....                                   |  | 2600 mm        |
| d) <b>Foot median</b> .....                                   |  | 6740 mm        |
| e) <b>Top width (see diagram)</b> .....                       |  | 40 mm          |
| f) <b>Foot irregularity</b> .....                             |  | 30 mm          |
| g) <b>The leech shall not be convex</b>                       |  |                |
| h) <b>Upper girth</b> at 2100 mm from <b>Head Point</b> ..... |  | 800 mm         |
| i) <b>Lower girth</b> at 1000 mm from <b>Clew Point</b> ..... |  | 2010 mm        |

|       |  | <u>minimum</u>        | <u>maximum</u> |
|-------|--|-----------------------|----------------|
| G.5.3 | Weight of the <b>ply of the body of the sail</b> ..... | 200 gr/m <sup>2</sup> |                |

Measurement by thickness may also govern in accordance with ISAF Equipment Rules.

|       |  |                    |
|-------|--|--------------------|
| G.5.4 | <b>Windows</b> (max. 3) total area                       | 0.28m <sup>2</sup> |
|       | Shortest distance from <b>window to sail edges</b> ..... | 150 mm             |

G.5.5 Only two battens pockets as defined in G.2.1 shall be permitted in the **leech**.

|       |   | <u>minimum</u> | <u>maximum</u> |
|-------|---|----------------|----------------|
| G.5.6 | Batten pockets .  |                |                |
| a)    | <b>Head point</b> to intersection of <b>leech</b> and centreline of uppermost batten pocket | 1950 mm        | 2295 mm        |
| b)    | <b>Clew point</b> to intersection of <b>leech</b> and centreline of lower batten pocket     | 2070 mm        | 2290 mm        |
|       | <b>Batten pocket length: Inside</b> .....   |                | 330 mm         |
|       | <b>Batten pocket width: Inside</b> .....  |                | 60 mm          |

G.5.7 The forestay shall not be detached for the attachment of the jib. The fore edge of the jib luff, or its extension when hoisted, shall intersect the deck aft of, and not more than 50mm from, the forestay.

G.5.8 Double luff jibs are prohibited.

G.5.9 Not more than 20 fasteners each of 40mm maximum dimension measured along the luff shall be permitted.

G.5.10 A clew board, capable of fitting within a rectangle 250mm x 100mm, is permitted in the jib.

## G.6 Spinnakers

### G.6.1 CONSTRUCTION

The construction of the spinnaker is free according to rules G.1.1 to G.2.1.

G.6.1.2 The national letters and sail number shall be displayed on the front side of the spinnaker but may be placed on both sides in accordance with RRS Appendix H 1.3 (d).

G.6.1.3 The spinnakers shall be symmetrical about their vertical centre lines and shall not incorporate any device capable of altering their shapes.

G.6.1.4 Weight of the **ply** of the **body of the sail** ..... minimum 38 gr/m<sup>2</sup> maximum 76 gr/m<sup>2</sup>  
Measurement by thickness may also govern in accordance with ISAF Equipment Rules.

### G.6.2 DIMENSIONS

#### G.6.2.1 Large spinnaker

|   | <u>minimum</u> | <u>maximum</u> |
|---|----------------|----------------|
| a) <b>Leech lengths</b> .....                   | 7300 mm        | 7500 mm        |
| b) <b>Foot length</b> .....                     | 5180 mm        | 5580 mm        |
| c) <b>Foot Median</b> .....                     |                | 8750 mm        |
| d) Difference between <b>diagonals</b> .....    |                | 50 mm          |
| e) <b>Half width</b> - definition see ERS ..... | 5500 mm        | 5880 mm        |

#### G.6.2.2 Small spinnaker

|   | <u>minimum</u> | <u>maximum</u> |
|---|----------------|----------------|
| a) <b>Leech lengths</b> .....                   | 7300 mm        | 7500 mm        |
| b) <b>Foot length</b> .....                     | 4760 mm        | 5160 mm        |
| c) <b>Foot Median</b> .....                     |                | 8400 mm        |
| d) Difference between <b>diagonals</b> .....    |                | 50 mm          |
| e) <b>Half width</b> - definition see ERS ..... | 3800 mm        | 5000 mm        |

## PART III — APPENDICES

### OFFICIAL PLANS

|             |  |
|-------------|--|
| No. 67 - 1  | Lines plan (rev. date March 1969)  |
| No. 67 - 3  | Sail plan (rev. date December 1972)  |
| No. 67 - 4B | Arrangement plan (rev. date March 1985)  |
| No. 67 - 5  | Hull construction plan (rev. date December 1972)   |
| No. 67 - 6  | Deck construction plan (rev. date December 1979)   |
| No. 67 - 7  | (Cancelled)  |
| No. 67 - 8  | Keel plan (rev. date February 1988)  |
| No. 67 - 9  | Full size sections (rev. date April 1969)<br>(For National Authorities, builders and measurers only) |
| No. 67 - 10 | Alternative backbone (rev. date March 1985)  |

### OFFICIAL TEMPLATES

|   |                        |
|---|------------------------|
| 5 | Hull section templates |
| 1 | Stem template          |
| 1 | Transom template       |
| 7 | Keel templates         |
| 2 | Rudder templates       |

**Permitted instruments see**

**"SOLING SAILING" (First issue of current year or website : [www.soling.com](http://www.soling.com))**

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